AUGUST, 1961



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YKSWI: Sundays, 1039 hours EST, simultan-eously on 3573 and 7146 Kc., 51,016 and 146.25 Mc. Intrustate hook-ups taken on 7135 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultan-cously on 7145 Kc. and 14.342 Mc Intrastate book-ups taken on 7105 Kc

VKSWI: Sundays, 9900 hours CAT, on 7148
Kc. Intrastate hook-ups taken on 7138
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VK6WI: Sundays at 0930 hours WAST, on 7146 Kc. Intrustate book-ups taken on 7085 Kc. VKTWI: Sundays at 1000 hours EST, on 7145 Kc. and 3672 Kc. Intrastate hook-ups taken on 7115 Kc.

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FDITORIAL

REMEMBRANCE DAY CONTEST

A USTRALIANS don't have to be reminded that there was a World War II. In which a great number of the men of our fair land lost their lives in defence of their country.

But some of us forget, as the years go by, that the freedom we enjoy today was because of the sacrifice of those men, some of whom were Amateurs. Although we respect the memory of all who paid the sup-reme sacrifice, it is during August reme sacrince, it is during August every year that we particularly pay tribute to those of our Australian Amateur ranks who "died that we may live". It is in memory of them that the Wireless Institute of Aus-tralia organises its Remembrance Day Contest

Each year brings to this Contest a larger and larger number of Amateurs, keen to participate in supto accrue as many points as pos-sible in the hope of being top scorer. This popularity for the Remem-brance Day Contest is well merited but do not let us be so carried away with the operating zeal that we for-get why we have this Contest and are privileged to participate in it Let us all—at least in the opening few minutes-have the courtesy of maintaining the two minutes silence after the conclusion of the opening speech, which, each year, has been spoken for us by notable members of the community in each State.

This year we are privileged to have our Contest opened by the Governor of New South Wales, His Excellency, Lieut. General Sir Eric Woodward, K.C.M.G., C.B.E., D.S.O., and the Wireless Institute asks all Amateurs to listen for the fifteen minutes preceeding the opening of the Contest at 1800 hours E.A.S.T. on 12th August so that the words of Sir Eric Woodward will be heard and the two minutes silence ob-

In past years some Amateurs have commenced operation prematurely due, no doubt, to the fact that their watches and clocks were ahead of watches and clocks were ahead of true time. This year we ask all those who read these words to check the time accurately so that the W.I.A. broadcasts in each State broadcasting the opening address of the Govtransmissions spoiled

This is a worthy Contest. If you haven't been in it before make sure of participating this year. If you haven't the time to operate for long —and many are in this position— then at least come on long enough to make those minimum contacts in order to submit a log

They shall grow not old as we that are left grow old, Age shall not weary them nor the

years condemn,
At the going down of the sun and
in the morning We will remember them

FEDERAL EXECUTIVA

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"See You, Up Two" How Important is the S.W.R.? Transistor Radios-Part One FCC C.C. Announces Amended Re-sults-VK3ARZ Wins the Ross Hall V.h.f. Contest

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VK-ZL DX Contest, 1961
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"SEE YOU, UP TWO"

C. G. HARVEY, VK2AOU

O an a.m. addict, such a request To an a.m. addict, such a request for QSY would generally achieve nothing. Whilst the heterodyne from adjacent channel stations would change in pitch, QRM would be reduced but little. A minimum QSL of 6 and probably 8 kc. would be necessary to provide a satisfactory channel.

provide a saustactory contained.
Sidebanders, however, soon find how
easy it is to alip out of a VOX roundtable for a few words on the side. Even
in "kilowatt aliey" a move of 3 kc. is
generally sufficient to allow most W
sidebanders to go their separate ways
without intentional QRM.

The clue to success lies largely in the receiver, particularly in the slope factor of the if. passband. Those of us who now frequent those

parts of the Amateur spectrum where most stations have restricted their transmitter response to an upper limit of 3½ kc., and rejected the carrier and one sideband, see little sense in allowing the receiver passband to exceed the same figure.

The bonus in improved signal-to-noise ratio, reduced QRM plus the improved channel availability, justify the small effort involved. In the debit side, most a.m. stations now sound poor unless they have ample audio in the

lower 3 kc., and are free of f.m. C.w. of course is unaffected, once the tech-nique of dropping interference off the edge of the passband is learned.

The graphs and comment which fol-

low, summarise work with an old Hammerlund model RBG Super Pro. At the end of the experiment, VK2AQU was the happy owner of a more selec-tive receiver than the current heart ive receiver than the current heart throb, the Drake 2A. As all the accommendation of the comparison with the Drake's easile, comparison with the Drake's response is easy. I wanted to equal or surpass 2.4 kc. 6 db. down, and 7 kc. wide 55 db. down. Fig. 6a shows that this succeeded, and the next few para-graphs will show that it was a rela-

graphs will anow that it was a rea-tively simple project.

The original passband of the Super Pro is shown in Fig. 1, and is recog-nised as being better than most. In fact the hardest part of this project was making up my mind to tear a perfectly good commercial filter to pieces!

PLOTTING A CURVE

To run curves like this, proceed as follows. Disable the local oscillator. Couple a stable sig. gen., such as the Bendix frequency meter, to the mixer grid through an attenuator, such as a 5K potentiometer, and if necessary, an bk potentiometer, and it necessary, an isolating capacitor. The receiver S meter provides a handy means of observing the 1.f. response, particularly where the initial calibration approximates 6 db. per S unit.

Now, with a.v.c. off and r.f.-i.f. gain about normal, swing the sig. gen. across the i.f. passband, adjusting the attenu-ator for S9 at the frequency which gives greatest gain and hence the high-est S meter reading.

RAAF., Glenbrook, N.S.W.

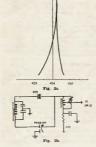


Now start with the sig. gen. above (or below) the passband, and record the frequencies which correspond to S meter readings of SI to S9 progressively on both sides of the passband. Make sure you can repeat readings with accuracy before time making plots!

After any adjustment in the i.f. stages likely to affect response, simply re-locate the frequency which gives maximum response, set the S meter to S9 with the sig. gen. attenuator, and re-run the curve. This series took 14 inches of ball point pen!

CRYSTAL FILTER

The curve of Fig. 2a is typical of a simple crystal filter represented by the circuit of Fig. 2b. It was ideal in the pre-sideband era, particularly for c.w. reception. The curve (Fig. 2a) represents the second last selectivity position of the Super Pro. The last

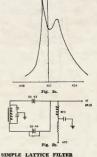


position produces a curve which is just twice as sharp as this one! Coupled with an adjustable "notch" which can be used to "phase-out" heterodyne or c.w. QRM, it still finds favour, but not with sidebanders,

You can see that reception of upper sideband will be impeded and that although adjacent channel interference will be minimised, the response curve does nothing to help resolve intelligence from random signals in a 300 c.p.s. to 3 kc. spectrum.

Once the truth of this sinks in, it is not quite so hard to get to work with the side-cutters! An enormous improvement in sel-

ectivity and slope factor results from adding an extra crystal, and using the simple lattice-type filter circuit shown



Any xtal spacing can be used, but the commercial channel spacing of 1.8 kc. is ideal and suitable crystals are available for a song. Even importing them from U.K. at 4/6 each won't break the bank, who will supply the appro-priate draft on request. No licence is required for such an import, and the address of several suppliers can be found in "Wireless World".

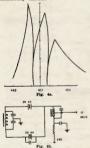
You can estimate the frequencies and channel numbers from the graphs. For those with 455 kc. i.f's. the nearest channel is 46, which can be coupled with 45 or 47 as desired. If you are keen enough, a few rubs with carbor-undum will shift any lf. crystal high by 1.8 kc., and you are in business without having to wait for the FT241A series. The if.t's, would be aligned carefully to the mid-frequency between

the crystals.

Our first response curve was a disappointment, looking nothing much like the nice theoretical curves in the handties of the notation of the nice of the next property of the nice of the soon showed that the loss of amplitude on the high frequency crystal peak was on the high frequency crystal peak was hid, crystal. This was the result of including the original filter phasing capacitor with which we had hoped to allow that he peak of the country of the sound of the nice of the crystal filter of the sound of the nice of the crystal filter of the sound of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the nice of the sound of the nice of the nice of the nice of the nice of the sound of the nice of the sound of the nice of the

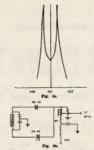
Too much C across the l.f. crystal will also widen the skirt, but it also has the undesirable effect of increasing the dip in response between crystal peaks.

The excessive rise in response outside the crystal frequencies was thought to be due to the non resonant, and hence low Q, nature of the r.f. choke used as a load. A tuned load (Fig. 4b) was substituted, from the original filter, which had the grid tapped down the coll for better matching. This is not necessary, and results with the grid substantially similar, and the load were substantially similar.



The graph of Fig. 4a is intended to show the dual effects of improper alignment and frequency drift. You can see that the filter load is peaked 3 kc. off the desired frequency, and that the effect of too much stray C is still present.

The sag in the top of the response curve is, according to the book, best overcome by attenden to the LC raise, former. But this was almost an impossibility with the Pro. In fact, at this revert to the tried and trusted Q3-er rrangement. Fortunately, my inquisresponse to the control of the control to the appropriate sections of the A.R.R.L. and "CQ" Sideband Handbooks restored confidence by providing some clues as



A determined effort was made to reduce capacitance loading of the crystals. Unfortunately, this involved deletion of the old phasing capacition and hence loss of variable selectivity. However, the sides of the pastband steepened significantly and raised mor-

ale considerably.

A further brain wave suggested that the Q of the load might be significant in shaping the response in the centre of the curve, which should be nearly flat with not more than about 5 db. of sag.

Resistor R (a 100 ohm carbon) was added, as shown in Fig. 5b, to test the hunch

Only 10 minutes work was needed after taking the first curve, to establish the resistance value which best filled the dip at 451 ke. There was no need to run a new curve for each change Bendix to 451 ke. and vary R until the S meter approached 59. After the nearest 20% follerance value was found aligned to the mid frequency. Which the happy result shown in Fig. 50.

This approach seemed preferable to wrecking a commercial i.f. to provide the right LC ratio using a capacitative centre tap which could still resonate the transformer.

FINAL SET-UP

The final passband is shown in Fig. 8n, and clearly justifies the small effort and expense involved. The band now seems half as crowded and even when conditions are wife open, editors ance. A move of 2 kc. away from a "round-table" has been found sufficient to allow 100% copy without arousing comment from the original group, at modern classification.

The curves here do not show the inevitable side lobes, which are well below the -55 db. baseline, but which become significant where conditions

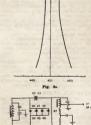
permit very strong signals, or if one lives close to another Amateur who uses the same band.

Theoretically these lobes are reduced by trimming the L1. crystal with \$4-2 pt^2\$— but after my experience with the particle of the principle of the principle

The books recommend two stages of lattice filters rather than one, but personally, after experience with this simple arrangement, I feel that this is not yet necessary in VK.

not yet necessary in VA.
Incidentially, this filter does not reduce the available stage gain, and in fact care may have to be taken that the Li strip does not regenerate! If it to cathode rather than ground, and adding grid stoppers to the touchy stages,

State of the control of the control



Crystal filters only seem complicated and mysterious. A few experiments such as this series, soon cuts them down to size. A week-end's work on a project like this will do wonders for morale and quickly remove one cause of unnecessary frustration to yourself and others. Why not have a go?

Fig. 6b.

HOW IMPORTANT IS THE SWR?*

BY "WUN GEE KEW"

It is, I suppose, a good thing that Amateurs tend to be perfectionists. It is because they are, that the best Amand built equipment which can com-pare with the best and most expensive professional equipment.

There are, however, many things in which this expertise can be taken too far, and one of them is to my mind in the constant striving after feeder line standing wave ratios as near unity as

One well-known VK, for instance spent many hours of hard work during spent many nours of hard work during which he sustained a bad fall from the top of his lattice tower, in an attempt to improve upon a standing wave ratio of 1.15!

As we shall see from the following As we shall see from the following mathematics (quite elementary ones, by the way), he might have saved himself the effort, as the gain he achieved by getting the s.w.r. down to unity from his already excellent figure was infinitesimal!

was infinitesimal:

As most Hams know, the s.w.r. of a transmission line terminated by a pure resistance (which most antennae are at their resonant frequency) is calculated from the following formula: S.W.R. = Zr + Zo

or its reciprocal

Zr where Zr is the load impedance of the aerial and Zo the characteristic im-pedance of the feeder line. If this ratio is anything else than

unity, it means that all the energy sent the antenna, and that some of it is being reflected back to the transmitter. Having found out the s.w.r. on the feeder, it is easy to obtain the coefficient of reflection and from that the percentage of the total current that is

being wastefully reflected back to the To obtain the coefficient of reflection of an antenna/feeder combination, we

of an antenna/feeder combination, we use the following formula:

Coefficient of reflection (K) = (S.W.R. - 1) + (S.W.R. + 1) and to turn this into a percentage of the current that is being reflected, we need only multiply K by 100. Let's take a fairly common example

Let's take a fairly common example—that of a 75 ohm antenna being fed with 52 ohm co-axial. The s.w.r. will be 75 + 52, or 1.44 approximately. Putting this figure into the second equation we obtain a K of 0.184. 18.4% of the current delivered to the antenna will be reflected unused by it.

win be renected unused by it.

At this point the purists say, "What did we tell you? Nearly 20% loss, and you are trying to tell us it doesn't matter?" matter!

What they are forgetting is that nearly 20% of the current is being rehearly 20% of the current is being re-flected, which is not at all the same thing as 20% of the power. The rela-tionship W = I'R tells us that power is proportional not to the current, but to the square of the current; and this puts a very different complexion on the matter.

"Reprinted from "Malayan Rodio Amateur."

In the case we have taken as an example, let's assume that I ampere of r.f. was being delivered to the 52 ohm line by the transmitter. 18.4% it, or 0.184 ampere, is being reflected. By using the W = I'R formula we find this represents (0.184)* × 52, or 1.76 watts' lost out of a total of 12 x 52. or 52 watts actually "going up the power in the circuit.

decibel notation, therefore, loss with this arrangement is 10 log

While I would like to see a bit better s.w.r. than 1.44, the fact remains that it results in an insignificant power loss. Taking it back into terms of percentage, no engineer would seriously suggest that a machine of 96.6% efficiency was exactly a failure

Working through the same calcula-tions for our VK friend and his s.w.r. of 1.15, we find that his antenna and feeder had a power transfer efficiency of 99.5%, from which it is immediately apparent that his praiseworthy attempt to reduce it to unity, while being a fine effort from a perfectionist point of view, was certainly not worth risking a broken neck for!

For ease of reference when you have found the s.w.r. on your feeder, the following table will give you the power loss in percentage and also in terms of

Percentage Decibel S.W.R Power Loss Power Loss 1.25 : 1.2 0.02 1.5: 0.18 175 - 1 7.5 0.3 2.5: 18 5 0.0 1.3

From this it appears that if your s.w.r. is better than 2:1 you have little to worry about! Naturally, the actual losses will be a little higher than those listed, as ohmic losses additional to those purely due to loss by reflection must be taken into account; but with feeders of average quality it is unlikely ior to those shown in the table by

☆



Many Australian Amateurs have QSO'd Mickey YV5AIP, who is seen here at the operating desk with his equipment.

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Page 6

TRANSISTOR RADIOS*

AN INTRODUCTORY SERIES-PART ONE

PRELIMINARY SURVEY

In order to set the scene for this series of articles, it will be useful to recall first of all, that the transistor radio now covers a wide range of types, from highly miniaturised portables, some with short wave bands, battery operated cordless mantel receivers for home use, car radio receivers, and soon, transistorised television sets.

VARIETIES OF DESIGN

One of the most obvious trends in the design of transistor radios has been towards the production of smaller and smaller receivers, thus increasing the difficulty of access to components. Fault finding becomes more difficult and im-proved servicing techniques must be employed

Fortunately many receivers cordless home receivers) are considerably larger and the technician may obtain experience on this type of re-ceiver prior to dealing with the problems of miniaturisation. The larger receiver may be expected to provide an output of lw. or so and calls for the use of a battery of greater capacity.

The quality of reproduction is improved by a larger loudspeaker (e.g. 8" x 5") and cabinet. Such receivers have all the advantages of the transportable and, due to the absence of mains leads, are cordless. They have a particular advantage, of course, for areas having no mains supply, because of the low battery consumption.

Some currently available models may have a socket which allows a car-radio aerial to be used instead of the internal ferrite aerial. In this way the performance of the receiver when used in the family car can be improved, thus increasing the general-purpose appeal of the set. A further development of the same idea has led to models which, when in normal use, appear to be a car-radio operating from the car bat-tery; when withdrawn from the fittings this receiver becomes fully portable, and operates from its own internal battery.

THE TRANSISTOR

In the most general terms, it can be said that the radio receiver requires amplifying and detecting devices which will operate at various frequencies. The circuit designer nowadays thinks in terms of two completely different types of device for providing amplification. Some general considerations remain the same, or almost the same, whether he intends to use thermionic valves or reansistors. But in many respects the two approaches are completely different, and it is instructive to notice how often, if one can consider the valves in one way, it may be necessary to adopt an opposite viewpoint for the transistor.

One combination of characteristics— that of the valve—are thus being ex-changed for a different combination that of the transistor. The approach

* Reprinted from "Mullard Outlook" (Aust. edition), Vol. 4, No. 1, 1961.

• The present article is the first of a series on transistor portable receivers and cordless radios and articular attention will be given to the problems of servicing these devices. The treatment will be as simple and straightforward as possible in order that maximum benefit may be derived by those are required to maintain transistorised radio equipment.

required for the transistor will be described in future articles as will its advantages and the way in which it should be handled. The ultimate aim is that those new to transistor techniques shall feel equally at home with transistors or valves.

PRINTED WIRING

Future articles will be devoted entirely to the question of printed wiring with particular reference to transistor receivers. The introduction of printed wiring at roughly the same time as the transistor has led to the production of highly compact personal portables. As many technicians will have had neither the time nor the opportunity to find out for themselves the best ways of rethe aim will be to pass on some of the techniques of those who have worked extensively on printed panels.

One point in favour of printed wir-ing is that, as all the connections are made in one plane, it is moderately easy to represent these connections diagrammatically in the service manual or service sheet. The maximum use should be made of this information when it is available.

THE CIRCUIT DIAGRAM Fault finding will be less difficult for

technicians having a good general knowledge of basic transistor circultry and in the articles to follow this will be emphasised.

FAULT FINDING

distortion.

Fault-finding procedures will be de-scribed in later articles in the series. The majority of set failures will result in complete break-down. These are the easiest to service because the fault can be traced to an open circuit or a short circuit. Intermittent faults present more difficulty, as do sets subject to low output or excessive

BATTERY REPLACEMENT

Of the transistor receivers brought in for service, the great majority will only need a battery replacement. This does not, strictly speaking, count as servicing, though checking the state of the batteries is an essential preliminary to starting any job which has been brought in for repair.

Whilst locally produced transistor receivers are designed specifically to use local standard type dry batteries and the dry battery manufacturers are producing the more common type used in imported receivers, some imported receivers will still not accommodate local batteries and the serviceman is confronted with a physical problem of endeavouring to accommodate the largest capacity battery as is practicable.

A rundown battery may be the cause A rundown battery may be the cause of a variety of complaints of poor performance. To safeguard against this occurrence, the set should be allowed to operate for some time before checking the battery voltage. This simple precaution will soon weed out those cells which have been able to recover sufficiently to give a respectable read-ing when first switching on.

Although usually the rate of deteri-oration of each cell is consistent where individual dry cells are used and it is sensible to replace all cells.

Set design policies on types of dry battery, measurement and anticipated battery life relative to receiver perpattery life relative to receiver per-formance will be discussed in Part Two. (To be continued)

F.C.C. Announces Amended Results-

VK3ARZ WINS THE ROSS HULL V.H.F. CONTEST

The F.C.C. advises that it has re-viewed the results of the Ross Hull Vh.f. Contest announced in the June issue of "Amateur Radio" following a re-interpretation of the Rule dealing with the claiming of bonus points in Section B.

The revised results place VK3ARZ as winner of the Ross Hull Trophy in place of VK5GG, who, however, retains the award for the VK5 Division in Section B with 465 points.

A gremlin in the tabulation of the results caused VK5ZDI to be placed in Section A instead of Section B, where

he would not gain an award. The revised score shows that VK4ZBZ is the winner for Section B with 657

F.C.C. regrets the need for revision and hopes no one will be embarrassed by the amendment.



VK-ZL CONTEST

PHONE: 30th SEPT, and 1st OCT. C.W.: 7th OCT. and 8th OCT. 1000 hrs. GMT to 1000 hrs. GMT

TWO-WAY RADIO OFFICIALLY HANDED OVER TO BURNIF FIRE BRIGADE

The Burnie Fire Birgade was offically presented with a two-way radio instal-lation by the President (Mr. Max Ives, VK7MX) of the North Western Zone of the Tasmanian Division of the W.I.A. recently. The presentation took place at the Brigade's headquarters.

Mr. Harold Tattersall, Acting Chairmen of the Brigade Board, introduced the speakers

Cr. L. R. Rigney, who deputised for the Warden, spoke of the interest the Council had in the Brigade. He apoiogised for the absence of the Warden

Mr. Tattersall then introduced Mr. Ives, who outlined the composition and activities of the Wireless Institute of Australia. He said it consisted of Radio

Amateurs and Associate members in-terested in radio. The Amateurs built and equipped their own stations to experiment in the

fields of radio and electronics.

REMEMBRANCE DAY CONTEST

12th and 13th AUGUST, 1961 1800 hours to 1759 hours E.A.S.T. "Many valuable discoveries have been made by Radio Amateurs from time to time, and they do valuable work in the provision of communications in times of emergency, such as bush fires and floods," he said

In officially handing over the radio apparatus to the Brigade, Mr. Ives said he hoped it would give long and faithful

A demonstration was then given of two-way communication between the Brigade vehicles and headquarters.

The Chief Officer of the Brigade

(Mr. R. W. Beach) thanked the Institute, the public and local organisations who contributed money or gave their services in helping to obtain the radio. services in helping to obtain the radio.
Other speakers included Mr. H. Mc-Elwee, a member of the Fire Brigades
Commission; Mr. J. Cornelius, General
Superintendent of A.P.P.M. Ltd.; and
Mr. L. Maxfield, Chief Officer of the
Devonport Fire Brigade.
Mr. Maxfield, congratulated the Bri-

gade on installing the unit and said it would be of great benefit.



official handing over re a two-way to the Burnie the installation of Beach (Chica Brigade), an rattersall (A

Apnis

AUSTRALIA'S OWN BRAND

Top right: AEGIS STEREO SIX-88 AMPLIFIER

Full 16 watts of power. Choice of three inputs: Monoural, Stereo, Monoural, and Radio Tuner. Designed for 240 volts, 50 cycles mains. All front controls

Bottom right:

AEGIS IMPROVED

Mark 2 TUNER Power supply can be drawn from existing Amplifier through voltage dropping adaptor supplied. Alternatively, an outboard power st (Aegis type PS/2) supply be fitted directly to tuner.



AEGIS Products ... are backed by continuous research and rigid production con-trol. That is why AEGIS Australian made components have long been re-cognised by Amateur and Serviceman alike as equal to the

Look for these AEGIS Quality Tested Products: Top right: Extension

Speakers Centre: Two-Piece Concentric Knobs

Extreme right: Radio Mains Filter

Bottom right Aerial Filter System



AEGIS MANUFACTURING CO. PTY LTD.

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VK-ZL DX CONTEST, 1961

N.Z.A.R.T. and W.I.A., the National Amateur Associations in New Zealand and Australia, invite world-wide par-ticipation in this year's VK-ZL DX Contact

Objects For the world to contact VK. and ZI, stations and vice verse When. Phone—24 hours from 1000 G.M.T., Saturday, 30th September, to 1000 hours G.M.T., Sunday, 1st October. C.w.: 24 hours from 1000 G.M.T., Saturday, 7th October, to 1000 hours G.M.T., Sunday, 8th October.

Duration: For all contestants is 24

1. There shall be three main sections

to the Contest (a) Transmitting phone.
(b) Transmitting c.w.
(c) Receiving—phone and c.w.

The Contest is open to all licensed Amateur transmitting stations in any part of the world. No prior entry need he made. Mobile marine or other non

land-based stations are not permitted to enter the Contest. 3. All Amateur frequency hands may be used, but no cross band oper-

ating is permitted.

4. C.w. will be used for the secon week-end, and phone during the first week-end. Stations entering for both sections must submit separate logs.

5. Only one contact per band is permitted with any one station for

contest purposes. 6. Only one licensed Amateur permitted to operate any one station under the owner's call sign. Should or more operate any particular two or more operate any particular station, each will be considered a com-petitor, and must submit a separate log under his own call sign.
7. Entrants must operate within the terms of their licences.

Cyphers: Before points can be claimed for a contact. serial numbers claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telephony) or RST (c.w.) report plus three figures which may begin with any number between 001 and 100 for the first contact, and which will increase in value y one for each successive contact, e.g. if the number chosen for the first contact is 053, then the second must be 054, followed by 055, 056, etc. If any contestant reaches 999, he will start again from 001.

(a) Overseas Stations: One point will be scored for each contact on a specified band with any VK or ZL district The final score will be derived by multi-plying the total contacts on all bands

WANTED!

ARTICLES

Can you write an article for "Amateur Radio"? How about one for Hints and Kinks?

by the total number of VK and ZL districts worked on all hands. These are ZI.1 2 3 4 5 VK1 2 3 4 5 6 7

(h) VK and ZI. Stations: Pine points for each contact on a specific hand and in addition for each new country worked on that band, bonus points on the

following scale with he added-1st contact—50 noints 2nd 40

445 20 5th

For this nurnose the ARRI. countries list will be used with the even tion that each call area in the HSA. will count as a scoring area. 10 Form:

(A) Overseas Stations...

(a) Must show date, time in G.M.T. (a) must snow date, time in G.M.I., call sign contacted, band used, serial number sent, serial number received. Underline each new VK and ZL district when contacted and use separate log for each hand used.

(b) Summary sheet to show: Call zn. name and address (p)ease use BLOCK LETTERS), details of trans-mitter, etc., total accre by showing total of districts worked on all hands and total contacts on all hands. (Districts multiplied by contacts equals total score.) Sign a declaration that all rules were observed.

(B) VK and ZL Stations-

ta, must show date, time in G.M.T., call sign of station contacted band used, serial number sent, serial num-ber received, contact points, bonus points. Use a separate log for each band.

(b) Summary sheet to show call sign, name and address in BLOCK LETTERS and score for each band by adding contact and bonus points for that band and total score by adding scores together. Details of equipment used—transmitter. receiver, etc., and nower

Declaration to be attached to all logs: "I hereby certify that I have op-erated in accordance with the rules and spirit of the Contest."

12. The right is reserved to disqualify any entrant who, during the Conwho has consistently departed from the accepted code of operating ethics.

The ruling of the Federal Contest Committee, W.I.A., will be final.

14. Awards: (a) VK-ZL Stations: The W.I.A. will award certificates to the top scorer on each band and the top scorer in each VK and ZL district. Additional certificates may be awarded depending on the number of loss re-

(b) Overseas Stations: Certificate to the top scorer in each scoring area. Additional certificates may be awarded depending on the number of logs received, e.g. to high scorers on different bands and place winners.

15. Entries must be postmarked not later than one month after the close of the Contest, and addressed to W.I.A., Federal Contest Committee, G.P.O. Bex 851J, Hebart, Tasmania.

RECEIVING SECTION

1. The rules are the same as for the transmitting section but it is open to the world. No transmitting station is permitted to enter this section

2. The Contest times and logging of are as for the transmitting section.

3. To count for points love will take the same form as for the transmitting her received. Logs must show the call sign of the station heard (instead of worked), the number sent by it, and the call sign of the station being called. Scoring will be on the same basis as for transmitting stations. It is not sufficient to log a CQ.

4. VK receiving stations may log STATIONS AND LOS STATIONS, WITH STATIONS, WITH STATIONS AND VICTORIAN STATIONS. 5 Certificates will be awarded to

the highest scorers on the same basis as for transmitting stations.

REMEMBRANCE DAY CONTEST 12th and 13th AUGUST, 1981

1800 hours to 1759 hours E.A.S.T.

FOURTH JAMBOREE-ON-THE-AIR

21st and 22nd OCT, '61 All Radio Amateurs with a past or present association with the to take part in this event. Hams in over 80 countries will be co-operating with Scout Groups and endeavouring to work as many

other stations as possible. Other Stations as possible. List year was the first time that Victoria made an organised effort, and the results were very autifactory. A total of 25 stations represented 65 Scout sent visited these stations. Well over 250 Group to Group contacts were made in all States of Australia and many overseas countries, by the Victorian stations. It is hoped that the interest shown will seed countries, or the Vectorian Business as executive to the Vectorian Branch et the live year. The Victorian Branch et the live year. The Victorian Branch et the live YeaAGD, John Woodburn, of Dunfeld, as State Co-ordinator, and all South was the Co-ordinator, and all South as State Co-ordinator, and all South as State Co-ordinators are saked to the Land Late and copy of log pheet to be used. All interested Amaturus are saked to Group and offer their services. Newton Corona and Corona and

Suburbal have accepted appointment It is hoped to have a full list in Sept Here is a golden opportunity for Amateurs to introduce our hobby to a great number of young people who are of a very impressionable age.

Amateur Radio, August, 1961

AMATEURS

FOR THE BEST RESULTS USE

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- * BATTERY CHARGERS
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IDEAL FOR BEAM AERIALS AND T.V.

★ LIGHT * STRONG **★ NON-CORROSIVE** STOCKS NOW AVAILABLE FOR IMMEDIATE DELIVERY

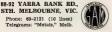
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STH. MELBOURNE, VIC Phone: 69-2121 (16 lines) Telegrams: "Metals," Melb.



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PREDICTION CHART, AUG. '61 4 5 8 10 12 14 16 18 20 22 CMT

E. AUSTRALIA — W. RUROPE L.S 6 8 10 12 14 16 18 20 23 34 E. AUSTRALIA — MEDITERRANEAN 3 6 8 8 10 12 14 18 18 80 20 16

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W. AUSTRALIA - 8. AFRICA 4 8 8 10 12 14 16 18 20 2

W. AUSTRALIA - FAR EAST 4 6 8 10 12 16 15 18 20 23

SIDEBAND

Bud Pounsett, VK2AQJ Alice Street,

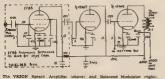
VESON TRANSMITTER (Fart 3) Again this month we have some further formation on Lindsay's interesting design.

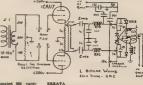
This part of the s.s.b. exciter enables genera-tion of a single sideband by the combination of two r.f. phases separated 80 degrees with two audio phases 30 degrees spart.

saido phases 80 degrees apart. Simplicity is the keynote. The r.f. phase-lift natwork designed by Lester ZLZAAX is Simplicity in the result of the result of the result of the result of the resistor, that is for a B meg, frequency been should be accurate to a per cent. For the result of the resul

your soleon

Therb SAPS, of Centerion, has made a signature of the control of t





The twin-coil system does give good results but is a bit tricky in adjustment. The ger-manium diodes are matched GDISs and give a very good performance.

The carrier innertion pot, is used to for touting-up and to preduce a.m. Normal innertion by a mail unbalancing vottage to point X is used for netting purpose to point X is used for netting purpose to point X is used for netting purpose to the point X is used for netting purpose to point X is used for netting purpose to point X is used to netter that it is unabalance are the point X is used to the point X is used to select four matched 1,000 cmm in here, but an unbalance will not greatly the sideband suppression

Audio Amplifier

Aedio Ampiller
This three-tage design gives willficient gain
from a ribbon micropione to deliver about
from a ribbon micropione to deliver about
there is a loss of 5-10 times in the sudio pain.
About 10-18 voils output from the stap-down
froanformer means 5-70 voils at the primary
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froanformer means 5-70 voils at the primary
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The American station is located 300 yard-away with the call sign XCMAAC VKOVK, etc., are to be found in the 14.00 to 14.100 ke. section of twenty metres and by this time should be on 7 Me. 1a.b.

CANADIAN-AUSTRALIAN

Joub! discovered to the second water of his life in New South Water of his life in New South Water of his life in New South Water lather was Post Marter at several cereary with the Royal Australian Alduring World War I. He lives in Enow, a city known to many Australians of the Company of the Royal Comp

In the circuit disgram of the VKEON control circuit appearing in July "A.R." please note that the netting switch has been incorrectly drawn. The ground connection should be made when the switch is "OFF" so that the out-off bias to the speech amplifier is ramoved. My apologies to anyone who may have been misted



"Come now Inspector, what gives you the idea I was exceeding the legal power limit?"

W.I.A. FEDERAL PRESIDENT'S ANNUAL REPORT, 1960-61

and it again my phenance to present the President and Admiral country and the Section of American country and the Section of American country and the Section of the Sectio

international Telegrammurations (Directory Controlled Section 1987). The Controlled Section 1987 of 19

re-communication of the work the sending year of Federal Council directives. Or Federal Council directives of the Pederal Council of the Compiled of the Compi

regretiably was unable to stiend.

Matters relating to the vh.f. bands have st various intervals reached the Executive and have been dealt with by the Vh.f. Represents tive, Dave Rankin, VKSQV, who site looks after mailing and distribution of the overseas international and W and K call agn books. These are distributed to Divisions four three

yearly and should be available to members who desire to check calls and addresses for DX purposes.

The Deferal Treasurer was made responsible furting the year for all property belonging it belongs to the property of the prope

behince there is expected to that expect.

monthly first year, word, in circularizing raise monthly first year, word, in circularizing raise monthly first year.

The property of the control of the cont

During the year, also, there has been marked increase in single fideband incomingions for the property of the

spellettinn of s.h. is frequency shift sergion of s.h. although only very few me destinate of s.h. although only very few me destinate of s.h. although only very few me destinate of s.h. although only very few me shed to remmant on the great and case of second of some series of second on the second of second on the second of second of

There seemed to be some doubt in the milot of sieve meethers of the Federal Council in the decirability of this type of transmit on the decirability of this type of transmit the frequency shift is limited to the cycle of the council of the counci

Official W.I.A. broadcasts continued tranmissions throughout the year in each State or mission throughout the year in each State or country and city members, and it is obvious that this is a service widely proclaimed, so tetularly by those who are unable to abbee the regiar monthly meetings of the Division that is number of complaints have been heat about W.I.A. broadcasts not adhering to the times set down for transmission, thereby case the set of the proclaim to the set of the country of the set of the proclaim to the proclaim to the protain of the proclaim to the proclaim to the protain of the protain of the proclaim to the protain of t nd time schedule, as agreed to by the Federal council and contained in the Federal Policy look, carried out in its entirety.

Sook, carried out in its entirety.

For the past year the Frederal QSL Bureau continued to function in its usual efficient nanner Federal QSL Officer, Mr. Ray Jones, (KLRJ, spent) long service leave abroad with its wife, the Bureau being carried on by fir. Exic Trablicock, BLRNS-189, during Mr.

43.254 cards were handled by the Bureau with 43.755 for the previous year, thewing a small increase over the 18th period and a small increase over the 18th period and a small increase over the 18th period and a small produce of the 18th period and a property of the 18th period and a property of the 18th period and produce of the 18th period and period an

During his trip abroad, Mr. Jones visited it Mr. S.G.B. MuZz., h. the U.S.A. (Switzerland L. S.G.B. Muzz., h. the U.S.A. (Switzerland in study QSL. Bureau methods used by the coieties Mr. Jones report that the systematic state of the systematic s

Jones.

Jones and the convolution of the property of the section by Divisional Connectic during the year in respect to encouraging young people in lake an interest in Annaleur. Baddo as a hobby. Quite a number of exhibitional section of the property of t

WIRELESS INSTITUTE OF AUSTRALIA—FEDERAL EXECUTIVE BALANCE SHEET AS AT 1945 FEBRUARY, 1941

Current Limbilities:— Creditors Convention Fund Trust Fund 1.T.U Fund Accumulated Funds:— Balance, 1/2/00 Add Excess of Income over Expenditure for		£397 :	19 :	2	Current Assets - Commonwealth Savings 2866 0 10 Debtors 40 0 0 Stock on hand 60 0 6100 0 10 Stock on hand 60 0 6100 0 10 1 Fired Assets ist cost less depreciation):— Pursiture and Fittings £18 5 0 0 5 0 0 10 10 10 10 10 10 10 10 10 10 10 10
year ended 28/2/61	56 13 8	000	3	8	Typewriter (No. 3) 24 5 0 Duplication 145 0 0 Trophies 30 16 0 Equipment_VK3WIA 83 10 0 377 8 1
		£1386	18	8	£1268 14

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED NOW FEBRUARY, 1961

Depreciation Prederal Contest Committee Ex- Prederal Contest Committee Ex- GSL Bureau Expense DXC C. Expense DX	£16 18 0 40 13 8 21 0 0 21 2 0 30 11 4 76 3 7 7 17 8 1 8 0 15 3 11 5 5 0 26 10 3 129 19 8 4 0 0	Per Cépita Payments Prott en Saie of Log Sheeta and Insurance Claim Bank Interest	2 10 5 135 0 0 83 6 10
Excess of Income over Expendi- ture	54 18 8 £459 15 3		£489 15 3

STATEMENT SHOWING MOVEMENTS OF FUNDS FOR YEAR ENDED 28th FEBRUARY, SMI

STATEMENT SECUTION MOVEMENTS OF FUNDS FOR TEAR ENDED 20th FERRUARY, 1941
CONVENTION FUND—
Balance in hand as at 20th February, 1961 'unchanged')
RUIT FUND—
Balance in hand as at 18th March, 1969
A5 5 0

| Making | Mark | Mark

We have creamined the bode and considers of the Writine Institute of Australia Preferences and the Energy of the Energy of the Section of the

WARBURTON FRANK

Australia's Biggest Range and Best Values in Radio Parts

Volts' A.C./D.C. 0-10, 8-80, 8-250, 8-568, 6-1,000.

Milliamps. D.C.: 0-500 gA., 0-10 mA., 0-250 mA. Resistance: 8-20K ohms, 8-200K ohms, 0-2 megohm. DB. (up to 6,000 cycles) to 22 DE.

Capacitance: 0.001 to 0.3 gF. Bize: 5%" x 3%" x 1%".

SUPPLIED COMPLETE WITH

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AND TEST LEADS

Low Voitage Soldaring Iron. Safe and convenient to use. Iron only, £3/£90; pack and post £/-Transformer to suit, £3/£/0; pack and post £/-Will siso work from car battery A complete range of pagess always in stock.

Superior Soldering Irons-240v.

38r lengths, Resin Cored Ersin, 1/- each. Pack and post free.

No. 7, 8, 14, 15, 17 and 24, 18/- each plus 35% Sales Tex. Pack and post free.

Similar to OA210, 1N1763, etc. Type HR25, 12/8 each Puck and post free 1H6G 2 Volt Diode-Triodes

Suit 6HM8 valves, 29/11. Pack and post 2/1

Diamond Stylii Standard 78

Meters-4 ins. Square

0-1 mA Plain Scale 0-1 mA. Multimeter Scale 0-500 aA. Plain Scale 0-50 gA. Plain Scale

2/61 each. Pack and post 7d. Frame Output Transformers

Power Diodes

... ... 15/5 each Pack and

KEW MULTIMETER TK70B Sensitivity, D.C. 20,000 obms volt.

PRICE 27/12/0 plus 12%% Sales Tax.

Pronto Soldering Gun Price £3/8/6. Transformer to suit, £3/6/6. Pack and post 5/-, Automatic Solder Food Attachment, 26/8; pack and post iree.

Scope

Solder

1 lb. Reels 40/60



CLEARANCE-ENGLISH STEREO FOUR-SPEED RECORD CHANGERS-£12'15'- Freight forward

Imported Four-Speed Turntables and Separate Pick-up Latest Turnover type. Crystal Cartridge, £5/6/2 plus 25% Sales Tax.

TORCH LAMPS American, 2.5 volt 1/2 amp. M.E.S. Buse. Boxes of 10, 2/11, Pack and post 7d.

SPECIAL-POWER TRANSFORMERS

50 mA., 225-0-225v., 6.3v. at 2s., 21/8 plus 25% Seles Tax. Pack and post 2/8 30 mA., 150-0-150v., 6.3v. at 1.7s., 26/4 plus 25% Seles Tax. Pack and post 3/3 STEP-DOWN TRANSFORMERS

240/24v at % amp, 26/8 plus 25% S.T 240/12v at 1.5 amp, 26/8 plus 25% S.T 240/5.5v, at 2 amp, 26/8 plus 25% S.T. Pack and not any of the chave 2/4

W.F. ARE VICTORIAN DISTRIBUTORS FOR MAGNAVOX SPEAKERS

Write or Call for Data Sheet describing these Low Priced Top Quality Products

12WR Dual Cone, 18 watts, 36-15 kcs., V/C Impedance 15 ohms, 87/9 plus 25% 8-T SWR Dual Cone, 7 watts, 36-15 kcs., V/C Impedance 15 ohms, 51/2 plus 25% 8-T 12PPK Dual Cone, 10 watts, 36-18 kcs., V/C Impedance 27 ohms, 18/5 plus 25% 8-T SFIX Dual Cone, 7 watts, 36-12 kcs., V/C Impedance 27 ohms, 55/6 plus 35% 8-T Pack and post 5/- each

TELEVISION ANTENNA SPECIALS -

Indoor Sprait Type Actals. Ideal for good reception areas \$1/- plus \$5% \$2. Per \$2. Pe

Stand-Off Insulators 12 inch Metal Thread or Wood Screw, 8/- dosen plus 25% Sales Tax.

Turnbuckles 4 inch extending to 2 inch, 3/8 onch plus 12%% Sales Tax.

Maststraps 5/8 docum plus 25% Sales Tax

Plugs and Sockets Surface type for 300 ohm Ribbon. Walnut only,

300 ohm Ribbon 100 yard Resis, 45/- plus 191/2% Sales Tax.

Open Line Feeder Cable-300 obms Will insprove reception in fringe areas where ordinary Ribbon is now being used, 45/- per 100 ft. plus 121/6 Sales Tax. Peck and post 2/6

Open Line Insulators
to sait Metal Thread or Wood Thread, 1/- such plus 25% Sales Tax.

3 Element Travelling Wave Antennae

Tenna Ties-Hi-Lo Band Connectors

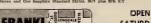
8/- each plus 28/5 Sales Tax. May also be used as ettenustors. Post free.

N.A.C. Telephone Sets

New Grey Plastic Hand-Sets with built-in Buzzers. Ideal for house to garage, shop to kitchen or inter-departmental communication, etc. Only actrys required is Twiz Flex for connection. Price per pair, £87,187 plus 131% S.T. Pack and post \$1.

Test Leads Rubber Covered, Heavy Duty Flex with high quality Tips and Prods, 11/9 pain plus 13% S.T. Pack and post 5d.

Stereo Crystal Pick-up Cartridges Imported Collel
With Two Supphire Stylli, 1976 phus 15% S.T. With One Diamond Long Playing
Stereo and One Supphire Standard Stylus, 1997 plus 15% S.T.





SATURDAY MORNINGS

QUEENSLAND (THE SUNSHINE STATE) DIVISION'S ANNUAL CONVENTION AT NAMBOUR

On Saturday, 10th June, the peaceful surroundings of the C.W.A. Hostel on the heights of Nambour were disturbed by an influx of men and motor cars
which proceeded to mystify the locals
by the actions of men scaling trees and stringing wires, and other men talking into their dashboards. However, the curiosity of the locals was quickly dis-pelled by the magic words "Amateurs" and "Hams"

and "Haims"

Yes, the Queensland Division Annual Convention was under way. And what a wenderful covernition was under way. And what a wenderful covernition was under water to be a second of the covernition which in the secret of these I didn't get updatas myself, while deevnature of large vernachts were the large wh. I and and dining froms. There was plently of toes for all although many more cars would have maltied some parking in the disposit street. Another feature was the 110 kv. sub-station ensuring ample power for members, but shoul-the noise level get too high next time we man have to sak Barry 4LN to move the sub-

have to set Shrry sLN to move the sub-rest convenience really started above shitten-day, with the arrival of Bill 1978 and XTA. The convenience real particles of the second and get the show goods. Vice 472 must have some up well indeen with agen to earnive some up well indeen with agen to define the time with a fairly way to be their tele-tions with the second of the second of the with their felses and entitudes. When the second of the second of the registrations as people erroyed, and it was not until after disness that things begin to move

Jim 499, thil 499 and fixed bothed after with after distance that things begin to move with after distance that things begin to move the second of the secon

of AVI some of the "bot to old" were allowed.

On Stunday more distinctors, XVII. and harden.

To Stunday more distinctors, XVII. and harden are account on the stundard state of toutied and others, blacking calls and account of the state of toutied and others, blacking of equipment were distincted by the state of th

After lunch Wide Bay and Burnett Branch held their monthly meeting and four coun-efflors—President Jim 4PR, Secretary Bill 4WX, Bert 4AO and myself—joined in to answer

During afternoon is a modulation trans-former, donated by Evan 4EF, was raffled and Jack 4EF was the lucky one. Get that modu-lator going now Jack—no excuses left. later going now Jack—no excesses left. The Ribb Campbell contest took place now with four portabled, SER, 6227, 4387 and 4387. SEA CARL the last pick a pwinty good press, hasn't part of the product o

ried on random QSOs.

After les the prines were presented in the Assembly Hall and a preity good film show. The inquisitive Glani, 'in which Professor The inquisitive Glani, 'in which Professor has building of Joddrell Bank radio telescope in a most interesting way, was shown. Another film showed Australia's Mt. Stromlo and the radio telescope at Parkers.

Vince 6VJ beloed out with films which were projected so capably by Barry 4LN. That about finished the Convention, as on Monday morning most were ready to go home. The most important event on Monday was the arrival of Ross 4ZAT, of Brible, his XYL and harmonics to the fifth, who couldn't get along sooner. We were giad you came. Ross And to Nemotor is balled us and we proton I have a subject of any horizontal parments of the property of the property of the programme finded to have a reality good time at a
year and the property of the proper

Next year we'll have that big sign up. Jim 6HZ (who has it?), and pienty of arrows. I'm looking forward to writing up next year's convention—6HJ

W.LA. FEDERAL PRESIDENT'S ANNUAL REPORT, 1968-41 (Continued from Page 12)

have a serving membership as the older of directing this policy, the Exceptive imported directing this policy, the Exceptive imported directing the year a quantity of the EE.G.S. excellent introduction for newcomen. Copies have been made available to Divisions for sale when the policy of the property of the exception figures. There is no reason why if the policy of the exception figures. There is no reason why if it accompanies the raider prequirements of technical knowledge for the A.O.C.F and

LAOCF
It has been the hope of the W.I.A, for some years past that a publication of this nature be furtherening from the Institute, but due to economic conditions prevailing it is impossible conditions prevailing it is impossible to the condition of the property of the property of the condition of the property of the

tion.

Last year I promised that every effort would be made lo get the Federal Station, VKJWIA. on the air as soon as possible. This has not eventuated yet but plans are well advanced and the first less transmissions about take place in the near future.

place in the ocar future. The Federal Awards Manager, Mr. Alfred Kizsick, VKEKE, has completed another year's excellent work since taking over this duy from Gordon Weynion. VKEKU Our national award—the "Worked All VK Call Aress"—has award—the "Worked All VK Call Aress"—has again shown an increase in popularity over-seas, thirty-six (38) certificales having been issued ower the past 12 months 14 to the U.S.A., 2 to New Zealend, 2 to Porto Rico, and one each to Ilaweii, India, Canada, U.S.S.R., Mozambique, Burma and Belgiaum

Mozzanistowe, Burma and Belgium.

This may not sound to be a great achievement, but when you take into consideration that this Award is a difficult award to obtain if was made so on purpose so that it would be sought after—you realise that it is a good effort on the part of the 35 applicants who made the grade.

made the grade.

made the grade.

grade and qualified for the Australian UK.C.C. Award—a realizable to the Australian UK.C.C. Award—a realizable result during this period of downward confitions in the sumpet cycle. Forty holders credit to their listing. A new D.K.C.C. Certificate has been completed and will be fortificate in the confidency of the confi

cates being issued during the year. This award—implemented in 1949—requires one confirmation from each Australian State (including the Northern Territory) of contacts made on the 50 Mt band. Not an easy award to achieve, and credit goes to those who made the notes-sary confacts.

selfy climates

Fig. 1. Continued his deadcont dairy as released bridge has been

c.w. message traffic between the Divisional

c.w. message traffic between the Divisional

released Councillors and the Executive. There

handled which I consider inadequate use of

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the channel for the time spent by the opera
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Due to spasmodic conditions, Mr. Japaon reports that some difficulty was had in making contact with the more distant Divisions, but every message was passed to addresses. The same band of operators have maintained the traffic achedules and attendance at the achedules

time had been excelent.

In corclusion I would like to make a few of the control of the control

generally control of the Amstern Service in the Commonwealth of Amstern Service in the Commonwealth of Amstern and its Mandatch Ferritories, Perfect of Amsterna and its Mandatch Ferritories, Perfect Secutive of the Institute, that it has been a successful year in many ways that there has been a successful year in many ways that there has been as microsast in Institute with the Commonwealth of the Amstern Service to play its part in the commonwealth as activity of our prest country. -G Maxwell Hull, Federal President.



Alan Shawsmith, VK4SS risbane, Qid.

June conditions overall have been better then expected, particularly 18 Mc. on which the many control of the particularly 18 Mc. on which the most on most days. In the first ball of the most have been supported by the most better than the m

The has been fair, but not as good as this winter band can be. From 0700 hrs. GMT, it opens up to Wil to WB particularly, and later to JA and UAS, etc. However, the 1800-2000 hrs. GMT Short Path to Kurope is now out. The bands at most times were active enough to entice one to keep the ear tuned expect-antly, but little of soything really rare was heard during June.

Working ? Mc. takes patience and a bit of searching to dig out the better ones which show up now and then on this band. NEWS AND NOTES

NAMES AND NOTES: for "ALKITY on 16 MINES AND NOTES! for "ALKITY on 16 MINES AND NOTES AND "ALKITY ON 16 MINES AND "ALKITY OF "ALKITY ON 16 MINES AND "ALKITY OF "ALKITY ON 16 MINES AND "ALKITY OF "ALKITY OF "ALKITY OF "ALKITY OF "ALKITY" OF "ALKITY"

please send the GML to ONEQX.

The TYPE of the Control of the Control of Cont

irons Swan ias, namely RSMBC In response to requests, times will be given with the rere DX prefixes, when they can, but do not rely too much on these, as conditions change radically in the period between the compilation of these notes, and "A.R's." arrival in your post box.

STOP PRESS NEWS St. Helena-ZDTSA and ZDTSE active 14040 ke frequently, time 2300-0200t QSL to W99JY.

UAINED is on sails with 80 wests and dipole anisona. \$1200 hr. Fram Jonet Land.

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CONTYTUES

Concept VICTOR reports a failt month for Concept VICTOR reports a failt month for control and control a

SOJMT, FUTMIC direct.

Dud WEAGQ forwards a list of two-way EAD contacts made on 14 Mc during June 16th contacts made on 14 Mc during June 16th contacts made on 14 Mc during June 16th contacts and 16th contact and 16th contact

Ray VERRK Sitts the following with timer in GMT 0810 VEGVK. ORDS KLTPI, 0805 KLT aCCS, 0810 VESKI 0540 VERRI, 0806 KLTSFN. 0830 GGCM, 1019 VEGDA. Cards received were OGCJ FRWD. VSIJW. VUZBO. UANKJA. UA KAB, ZSEDE

GAGI, CSUDA.

George YKSRX has the following to nominate Bis times are also in GHT: 2350 EAASF, Dialeste Is., UAGOM, 1850 UPEXNF, 1465
LASVH and LASZC, 1500 PAGRI, 1550 PAGLOU, 0000 OXIGAB, GELs received were: ZIAVS, PXIIT, CREEX (Angols), YSIO, UTSCC, SUS-ME (Runnic-Ursund), VFSL, ETEXE. ME (ROBRIS-USINGS), VPSML STEELE,

EYE ERESISE Sive us the following stafive between the control of the control of the conNe am VKKGP Noviole is, VKSFZ Noviole

Ne am VKKGP Noviole is, VKSFZ Noviole

VKSFX, UCHEL, UGGKAA UFSML ZIZENI

VKSFX, UCHEL, UGGKAA UFSML YKSFZ

ZKIAM 4575C WYMAK AMM, SMCAZNA

MONTH WEST COVAL FAMAN, FYSEIP, MYSAN

MONTH WEST COVAL FAMAN, FYSEIP, MYSAN

KKSFW UALAC, VSMAJ, VYSBJ, ZESKU

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ONAD (ex OgSiE) -Jane Heirnsux, 'F Ave Centrale, Raversyde, Middlakerke, Bel-VRICE—Cells Blair, P.O. Box SJ. Honisra
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AATT-Fred Ritter, P.O. Box 378, Tripoli.
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W.P.X. AWARD

W.J.X. ANNAMA

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VHF

David Tanner, VK3AAU

Appriestly from the occurrent about the fixed letter from the terminal to wooder whether we did not be a fixed letter for the fixed let only fittifed time at their disposal.

I have at last discovered where the whit operators so to during the winter. Dure I mount of the property of the propert

STY METROS

MIX METERS

Once again the DX on 8 metres seems to be recommended to the property of the prope

and, visit goes in show what can happen Barbel and with the property of the property of the property of a state of a stat

time was had by all.

The results of the last VKS Scramble were BBQ first in the No. 1 event, SZTM and SKK right in the No. 2 event, and STN and SSQ in Fig. 1 and SSQ in the SS contests such as the Ross Hull Contest.

An extract from 'QST" reads that VKoVK
at Wilkes Base, has an automatic keyer which
will run a 100w rig to a beam on the States
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weggest that he contact KRQXG for further More over from Adolds counts from Col 100 and 50 an

head when you are confined to a crystal. Boy hea also seen design on the transparent he hope to have a go at the cw. and will send assess new on 50 Me when requested and the confined transparent to the confined success to him and any others who may have bad a try. Bod 50237 was unceredual at a success to him and may others who may have the confined transparent to the confined transparent to the confined transparent to the has been heard on the high frequency bands with a nice algorid in the Enstern States.

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TEVEL TAXEME

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TO TAXEME A CONTROL OF THE STATES AND THE STATES

EETH and EPH bet for third.

Activity on 1 mm, in Victoria seems to be centred in the western part of the State, New Jersey, and the seems of the state of the st to be only a challenge to the keen ones. Further east in VKSI there is another pocket of activity. Tone MW at Bendigo runs side, to a QUEM/or with a 16 st yag at 48 ft. His act of the policy of the

Thereign yearling are NO ten made at entrancing and an experience of the second of the

(on 6 mx).

Things have been very quiet from the VK4 direction this month, even on 80 mx, so I hope they are all frantically building v.k.f. ges?
The last VK3 2 mx fox hunt was held on July 5 with Alan 32HN as the fox. Only three bounds turned up but a terrific night was had by all and those who didn't come missed out on a lot of fir. Mearie 7MtS ran out the winner with Tom 3AOQ and Russ 3ZMZ sec-ond and third. They adjourned to the rooms for coffee and biscuits white a post-morram

whose with You MACO and Plan 1828, see for ordina on the leading white a post-course of confine and benefit white a post-course of the confine and the lead of the

The matrix in USCs seems to

mere matres in VRG seems to have guits a few regular operators with an influx of cut of few regular operators with an influx of the tion to the PM.G. Department for permission control of the PM.G. Department for permission of the present 8 ms one. They will keep us automed of results with this project. 800 and seems and Albany with quits a number of phone contacts and a few c.w. ones when signals contacts and a few c.w. ones when signals

WMC still carry out checks between Bassancontacts and a few Lw. come When signals
The last fee hunt was held on Standow His
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288 MEGS AND ABOVE

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There is much hierard in 1805 Me in Sydney
with Barry EZAB being the only one with a
complete station. Dick EZCF and Dave JAW2
splitton. Roy 2810 and Barry EZAG, sile Zire
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enthusiastic services and Frank 32DU have skeds on 1 mx on Monday and Friday evenings at 8 p.m., anyone is welcome to join in. If you want a 1 mx contact, Frank can be beard on (Continued on Page 19)

1961 EDITION

RADIO AMATEUR'S HANDBOOK

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Price 46/3 Plus 2/- Postage

BIG . . . REVISED . . . COMPLETE

An invaluable reference work and text for everyone—Radio Amateurs, Engineers, Lab. Men, Technicians, Experimenters, Students, Purchasing Agents, etc.

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8 HIGH STREET, GLEN IRIS, S.E.6, VICTORIA

Amateur Radio, August, 1961

VK6VE_A 50 Mc REACON TRANSMITTER

Many 50 Mc. operators in Australasia and elsewhere have heard on 50 002 Mc. under favourable conditions, the auto-matic m.c.w. signal from the VK6VF transmitter located near Perth in West-

ern Australia It is hoped that this description of

the station may be of interest to these and others, and may encourage similar projects to be but into operation by interested parties.

The station is, of course, a team effort, constructed and operated by members of the V.h.f. Group of W.A.

To ensure the presence of a signal on the 58-54 Me. band as consistently as possible to partially compensate for the variable level of activity on that band and hence to reveal any propagation effects which might be missed due to the low activity level.

To provide a consistent signal to encour-age local activity by aiding beam and receiver tests, etc.

ROUTHWINT THE COURSE OF A RCC Productor Prices sentimization of a Rcc Prices sentimization of the Rcc Prices sentimization of

Tone modulation (A2) only is available: no provision has been made for A3 operation. provision has been made for AS operation. The neet loss oscillator is hopped direct, at The neet loss oscillator is hopped direct, at wheat direct, and the second of the

The antenna in use at present is a four element wide-spaced yagi, rolatable. The direction of transmission is variable, but mainly in a direction N.E. from Perth or other directions as organises dictate.

ROURS OF OPERATION

Naturally in a "beacon" project such as this, the greater number of hours "on all" the better. To this end an Intilla application was better. To this end an Intilla application was permit. Unfortunately, due to the implication of unathended operation, this could not be granted. Therefore the station is run only generally means the transmitter is so the all approximately 65 per cent. of possible line. This is an average taken over an eight-month.

Typical operating hours (E.S.T.) are 0100-1600 four days a week); 0100-0400, 1800-3400 (one day a week); 0000-24000 (two days a

Unfortunately, due to the proviso afore mentioned, these hours do vary, but may serve as a guide. They should sat he taken as a causal hours. The bescon could be operating at any time as the present operator is a shift worker Total hours run since September 1900.

By the way, this transmitter has not heard "winter slumps" in 50 Me. activity!

Since the introduction of "The Beacon" (as it is referred to in VKS) in January 1859, DW reports have been received from JA, VKS KRS, a Mobile Marine in the Pacific, and mainland VK districts.

In many cases these DX reports have been In many cases these DX reports have been has been no regular activity on the bend at the time. Apart from Indersides and Interna-mont gratifying. Reports have been received particularly from Geraldton 180 miles). Moora (9) and Warcons 190 miles). In addition, the alignment, sentence test, etc., or purely a alignment, sentence test, etc., or purely a

BETTTER

CONCLUSION

It is proposed to continue running the transmitter on \$8,002 Mc. while we continue to retain use of the band. To help justify this plan, ALL reparts of reception will be most welcome and. If required, will be replied to by QSL card.

An interesting complementary project to this would, of course, be a remote continuously rur recording receiver! Any takers? Any correspondence on the subject would be welcomed and should be addressed to: The Secretary, V.h.f. Group of W.A. Inc., C/o VK5VP, 42 Purdon Road, Wembley Downs,

REMEMBRANCE DAY CONTEST

12th and 13th AUGUST, 1961 1800 hours to 1759 hours E.A.S.T.

O. T. LEMPRIERE & CO. LUNITED

Head Office: 27-41 Bowden Street, Alexandra, N.S.W. and at Melbourse - Brisbane - Adelaide - Perth

VHE NOTES

I mx most nights. He has 16w of stabilised gaser on 288.5 Mc and also has a mod. osc. The rx is a grounded grid converter with an rx rancing about the property of the propert

3.78 and a r e. year shout \$0 ft. high.

Dever the horder in YKS, David 5AW it now
running about \$0 w to a \$440 and is looking
for dieds. Prom a recent copy of "Sphilter,"
we learn that \$UA/T will non be in a posttion to transmit iv, signals. The various
pieces of equipment are currently being confrom culturates who would like to propress would be welcomed. \$210 SEAX would possibly be a starter.

ORNERAL

A large gethering at the June meeting in
Sydney based an instructive lecture by Arthur
out the hasards with 340v. a.o. in the Ram
shack and gave useful information on how to
pointing out the necessity of correct Nation
and to comply with the S.A.A. witing rules.
See made the point hat the rules are histories
and to comply with the S.A.A. witing rules.
See made the point hat the rules are histories
measure and that the haywire hook-ups
will be bankled.

will be bassisted. The June meeting in Melbourne was held between the property of the property time factor and this was a newslatter outlining proposals for field days and possible amendments to the Ross Hull rules. These were distributed with appropriate comments so that these will come up at the next meeting and all these present should have an idea of what is going on. The meeting concluded with supper and a rage-thew.

per and a rag-chew. Two outstanding qualifiers are still awai ing their certificates for the VKS V hd. I Award. New certificates are being printed ason as possible and further details will inported as they are available. In connection with the above, as well as a more connection with the above, as well as a two-way contact took place, the band of operation, dai, time, signal report RET, you usual signature? If It doesn't it might not prising how many cards ornit the essential information. It should also show mode of transmission—phone, c.w., a.b., etc.

The last meeting of the West Australian Vh.f Group took place at Maylands and they had a very good roll up despite the inclement

At the June meeting in VKI, a lecture com-mittee—TEJ, TZAK and TZAO—was formed to help build inherent in their meetings. They intend to concentrate on demonstrations, ex-tended to concentrate on demonstrations, ex-lectures. One of these will be on TX allowed properties of the contract of the contra

to all.

It now seems likely that the next Ross Hull
Contest will be run on a milesge basis of some
form, so we're hoping for many more participamis. Although VKTs don't seem to be
vocal in the matter of rule changes, they have
their say as their Group acts as unrofficial
Advisers to the FCC. on matters of v.b.f.

COMING EVENTS
The lecture for the Sept meeting in VK2
will be on u.h.f. equipment Melbourne v.h.f.
slow morse transmissions on Friday evenings
at 8.30 p.m. Please remember that these noise
are printed during the middle of the month
and that coming events at the beginning of the
month have passed by the time you receive

The list of DX accomplishments is growing very slowly so it may be a while before we print them. Thanks to 2ZDP, 3ZCP, 3ARZ, 3JW, 2ZGM, SRO, SBQ, SRY, 6LS, 7ZAO, 7LZ

CHOOSE THE BEST-IT COSTS NO MORE Resin Core for reliable connections TRICAL EQUIPMENT

MARIERE & CO. LIMITED Amateur Radio, August, 1961

TEED CORROSION EREE

SWL

Maurice Cox, WIA-L3055 Flat 1, 37 Boyd Crescent, Olympic Village, Heidelberg, Olympic Vill

How are all my VK s.w.l. friends this month? Still hearing plenty of DX? If so, why not drop me a letter or two on what you have heard. Not much mail this month, but it's enough to write this page up with all your doings, etc. deings, etc.

Awards.—I have been informed that they have to be re-written, so back they come to me this time and I'll write them up. Then we will see what happens. So be a little more we will see what happens. So be a little more
"The VKI Group listends to run a neweliter.
It will comprise DX heard over the past
morth. These who are interested in contribume a copy of your past morth's beg sheet,
giving date, true in Z.A.S.T. hand and naitrailly call signs IDX only). If you want a
part of the past morth's beg sheet,
giving date, true in Z.A.S.T. hand and naitrailly call signs IDX only). If you want a
pame and address, plus 67, or one year's
supply—this 87, covers postage. But wait until
I divite you all, none again in this column. I show you all owner significant the work that Devit forget the R.D. Copies that this month. Let us have be signed manner yet of recent years and the same and th

It is, in my opinion, a neessity to the a.w.l.:
It is, my opinion, a neessity to the a.w.l.:
It is, my opinion, a neessity to the a.w.l.:
In 1601, reception of the architecture of the world, and co-operating DX clubs. Now what more does one waste of the architecture of the architecture

VK NEWSBEET

VK. NEWSEEL.

VKE) Well, here are certainly improving four however, the results of the results o

Bert, all the VKS boys wish you back to a Specify recovery, be local as you have been added to the control of the control of the control of his stated A.O.C.P. lessons under AI \$2C.R. but unfortunately he has to move to Adedate and the control of the control of the control of early for the control of the control of early McGardyn night for the last month busy. What a shome they are getting a start to A.O.C.P somes and it has in step. I con-That's all for the VK newweel. Hope to hear from more of the other VK call areas.

Thinks very mich for your mail fellow 5 w lts. Lefesty mich for your mail fellow 5 w lts. Lefesty mich for your mail fellow fellowing: BRS188/1002 Eric Trebilcock, L2211 Chas. Aberneathy, L5031 Colin Hutches-son, L6031 Peter Drew, L5039 Peter Fisiel, Vic. Richard McKell, L3074 Mao. Hilliard, L2138/WK First of 31. https://dx. Afton Westcott.

First of al. the "scores" to the end of May
1961. from—guess who—the s.w.l. of them all.

It's Eric. He has 5,988 eards received for 268 countries confirmed, 46 zones confirmed. Eric has heard 277 countries ollogether. This year has beard 112 countries, 37 zones, has sent out 57 reports so far thas year, and to the cold countries in 32 zones. He collected PUBMS are countries in 32 zones. He collected PUBMS and CREBES to give him Nos. 268 and 269 re-

spectively

So far in June his rarest QSLs received were
from MFMCARR, VSSRAJ, YVZSRJ, YVRAY and
MFMCARR, VSSRAJ, YVZSRJ, YVRAY

Of May, he has received Tab QSL curds from

G land, 643 from DL, 323 W, 765 SM, 207 UAA,

BOO CM, 105 CS, 162 VSL 166 F, and 163 from

ST CONTROL OF TABLE AND TABLE AND TABLE AND

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deler records are reported by to deler records are reported by to MR DX on MR DX on



The antennae of Chas Aberneathy (L2211) and

L2211, Chas Aberneathy. From time to time this has fold me about the take off from his fTH. He sent me a snap taken at 20 ft. from helf tower, it above due or magnetic north, QUES. He send me a snap baken at 30 ft. from their lower, it shows due or magnetic north, south is just the same. It really is a wonder-builded in the same and the same and the shouldes his own gars. Hea's just completed a 5 inch 5 metre (good good man, are you short-sightled!). The circuit uses one side of a 12AU, signification of the same and the same and the ing completion is a 5-tube 6 mx converter. He has two 44 Me. converters, which belong to his son, and what are his son's, belong to Cham-cividen!

Other Model? It write about Char' ex-perimental to the control of the control of the con-pression of the control of the control of the con-pression of the control of the control of the con-pression of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the control of the control of the con-trol of the co

Colin Huichessen is still having strife with his rx. the h.f.o. being the trouble.

Gary Smythe is building a front-end for his 7-tube rx. Trevor and Colin are coming along in building the 4-tube converter and it should be completed by R.D time. His next project is a xtal locked converter. All the best in

Garry Berghte is building, a front-end for his building the clubs converted out in should be the building of the club converted that are all a should be a guid being converted that are thought to be a guid being converted that are thought to be a guid being converted that are thought to be a guid being converted that converted the converted that conditions have been very quote that converted that conditions have been very quote that the converted that conditions have been very quote that the converted that the converted

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QSL CARDS RECEIVED QSI. CARDS RECEIVED

Seeing that only two xwil's sent in their
DX heard, I won't include that, but in its
place cards reviewed LAGOS: XWAI, WHITCO,
DEEC CARD FROM THE SEE THE



NOTES

FEDERAL

R.D CONTEST, 1961 This year the Remembrance Day Contest will commence at 1800 hours E.A.S.T on 18th August and conclude at 1759 hours E.A.S.T on 18th August

on 13th August
The Contest will be opened by a tape recorded address by the Governor of New South
Francisco and Contest of the Contest of the Contest
All Australian Annaleurs are asked to part
All Australian Annaleurs are asked to part
Contest of the Contest of the Contest
All Australian Annaleurs are asked to part
All Aus

At the conclusion of His Excellency's open-ddress there will be two minutes silence in nemary of those who paid the supreme

GENTLEMEN'S AGREEMENT

CHNTENEN'S AGREEMENT
OF the band accounted to the Austral Service
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agreement. Use portion of the frequency
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phase operation, otherwise nothing but intelled
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phase operation, otherwise nothing but intelled
to the operation of the operation of the
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erable interference can ensue

50 kc, as agreed to in the past, has been a
reasonable portion for c.w. This may have to
be looked at again in view of the relative's
be looked at again in view of the relative's
least let us realise that it is better to have
a c.w./phone dissection than to have more qRM
than already provided by international broadnating and irrational c.w./phone Arnateur

Arnateur c.w./phone Arnateur cesting apu reasure of the control of the control of the control of the conditions attracting operating in the 1.3 and 7 Me bands is fall the more worthy that Amsteurs themselves arrange their own operating the conditions attracting operating in the 1.3 and 7 Me bands it is all the more worthy that Amsteurs themselves arrange their own operating the 1.5 and 1.

7 Mc. bands it is all the more worthy that Annatura themselves arrange their own operating habite. We suggest leaving the first ke, to the c.w. gang with places using the remaining 50 kc, of the exclusive 73 to 71 Mc anignment. If any further shared assignment is agreed to then place can eccupy this along with s.a.b.

POSTMASTER-GENERAL'S ADDRESS

POSTMATER-GENERAL'S ADDRESS
The 1881 Convention of the institution of matter-General, the Honourable C. W Davidson, G.B.Z. It is opening address. the Post-Service in Australia. saying, "In addition, sense 4000 Amstatur make radio their hobby. These ADD Amstaturs make radio their hobby. These holds are premissing podewill furning their conventions of the property of the world, in addition, of course, to transmission in times of emergency."

FEDERAL OSL BUREAU Divisional QSL Managers please note the ollowing changes in the A.R.R.L. QSL

Sureaux - KL7 Box 6228, Airport Annex Ancherage RLT Box GGR, Airport Annex Annexage NF4—Joseth Goulaley, NF4T, Box 1081, Son Usas, Puerfo Ricc. WX-MC Selector Box Ann. Box 203. A reminder is also issued that www. cords for U.S.A should be sent to Mr. Le Roy deste. Box GUSA should be sent to Mr. Le Roy deste. The NR.RL. seeks publicity for the Scan-diavalia Activity Contast which is to be held as follows: C.w. 1500 GMT, Sepl. 16, to 1800 GMT, Sept. 17, and Phone 1500 GMT, Sept. 28 to 1800 GMT, Sept. 28. Full details may be in 1800 GMT, sept. 28. Full details may be included with a bundle of back-dated GML from the Israel Amsteur Radio Caba is an apology for the delay in forwarding Several untoward happenings contributed to the hold

unterward kappenism contributed to the hole
Choch through the Fadoral Barras, during
Choch through the Fadoral Barras, during
and month since May 100.

The Choch through the Choch the Ch -Ray Jones, VK3RJ, Federal QSL Manager

FEDERAL AWARDS

Kuwast-Saudi Arabia Neutral Zone will be given new and separate listing in the Aus-iralian D.X.C. Countries List. This neutral zone is located between Kuwalt and Saudi Arabia and is territory over which sovereignty has not been established and from which Am-Radio activities have recentle January 11

—A Klarick, VKSKB, Awards Manager

NEW SOUTH WALES GENERAL MEETING

The June general meeting of the N.S.W. Division was held at the customary meeting place, Science House. Gioucester St. Sydney. with the President, Bill Lewis, VKZYB, presiding. On this occasion the attendance was siding. On this occasion the attendance was somewhat disappointing as only some 37 brave

colling. On this occasion the ethnology was common sender the elements. See a common sender the ethnology was a sender to be a common sender to the ethnology was a sender to the ethnology of th

potent Dy Norm Beard, ZALJ, and passed or exchanation. Councillor, Pierce Healey, ZAPQ, and the sensitive report and also dealt with agenda Remo which will be dealt with at the next Federal Convention to be held in Perth at Essier 1962, and for which any agenda Hems which members may have are urgently re-quired for inclusion.

COUNCIL MEETINGS Council of the Division is meeting at Headquarters, 14 Atcheson

The Council of the Division is meeting bit monthly at Headquarters, IA Alcheson Street monthly at Headquarters, IA Alcheson Street were present in addition to some visitors. A letter of resignation was tendered by Norm Division incompatible with his daily duties in smoother sphere. Council accepted his resignation in the council and members for the uniteraction of Council and members for the uniteraction was a second of the council and members for the uniteraction was the council and members for the uniteraction.

SILENT KEY-

It is with deep regret that we record the passing of:--

VK4EG-E. ("Ted") Gold. VK4PN Russell F. Roberts. The varancy thus occurring on the Disposals Committee was filled by the election of Mrith Jeffcosh, zBK, to that body, and a further change is that Vol Molesworth, ZVO, was elected as Disposals Secretary

By the time that this column appears in print the 1801 Cell Book will be available and also log sheets are available to all who require them in the many contests which will be held in the coulding months. Further details will be included in your Bulletin and on the weekly broadcasts A sub-committee was formed to allocate the Adams Trophy, which is given annually for the best VSC article appearing in "Amateur Radio" in the past year The committee rousists of Harold Burtoft, 2AAB, vol Molesworth, 2VO, and Ted Whiting, 2ACD.

The Southern Tablelands Zone Club of Goul-um has received its call sign, VK2ATR.

JUNIOR RADIO CLUBS Following a proposal by Reg Black, a com-mittee has met to discuss the formation of Junior Redio Clubs in schools, colleges and other youth organisations.

other youth organisations.

It has been felt for some time that there is a need for such a means of encouraging the study of radio theory, thus laying the foundations for a future career in the electronic field. Council has discussed the report with the two councillors who attended this initial meeting. ZAAR and SMR, and has accepted the in principle. Following further meetings of the committee, undoubtedly steps may be taken to implement

TAPE BERVICE

Again a reminder to the country clubs and groups that there are several excellent lectures on tape which will allow of the lecturers we have here in Sydney to be beard in the country. We have had several letters of thanks regarding these tapes during the past few months and can commend them to you The tapes available are as follows -

ne uspes s'utilizite are as follows -T.V.L. by Horric Dakes, VK2FA. Master Oscillaton, by Joe Reed, VK3JR 8.S.B., by Lee McMahon, VK3AC Transistors, by Heroid Burtoff, VK2AAH, V.H.F. Omnil-Range, by Peter Griffin, c

D.C.A.

Further tapes are being organised and all
are readily available on application to the
Education Officer, who will immediately arrange

AUGUST LECTURE

The lecture arranged for the August general meeting will be given by Harry Edwards, of the University of N.S.W., and his subject will be H.F. and VH.F. Antennae be H.F. and V.H.F. Antennae.
The following month (September) the lecture
will be on "Transistors in Communication
Receivers" and will be given by Bob Zuker.
General meetings are hald at Science House,
Goucester St. Sydney, on the fourth Friday
of the month, commencing at 8 p.m. Follow
the crowd and join in an interesting and in-

SHORT WAVE LIBTENERS' GROUP

Cheery greetings to a will in all States, this being the first opportunity I have had to sub-scribe to the Divisional Notes since the present committee of the S.w.L. Group took office. scribe to the Divisional Notes show the greenst Activity in VIA has been on the increase of Activity in VIA has been on the increase of the control of the control of the control of the control of the North Activity in VIA has been to the control of the North Activity in VIA has been to be control of the North Activity of the Control o

sibity be the SCRi322

The July meeting was given over to a talk and demonstration by Vol 2VO on Modifications of Disposals Equipment which was only one of the many lectures arranged by your com-



The Full Range of A & R-

MODULATION & DRIVER TRANSFORMERS

TRANSISTOR TRANSFORMERS

for the Mullard OC26 Modulator, featured in "A.R." May '61.

INPUT TRANSFORMER Type I.T.631

Primary 50 ohms (carbon mike input). Secondary 1,500 ohms c.t. Price: £1/16/4, Trade.

MODULATION TRANSFORMER

Type M.T.26 Primary 12.6 ohms c.t. Secondary 7,000 ohms, tapped at 4,000 ohms. Price: £2/8/8, Trade.

MODIFIATION TRANSFORMER Type M.T.30-40 Watts

Semi Universal Type. For impedance chart and connections, refer "A.R." February 1961 issue

New Reduced Price: £7/18/4. Trade.

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"R. T.V. & H." 10 Watt Modulator (Dec. 1959 issue).

Driver Transformer Type I.T 630, Price £1/16/8, Trade.

Modulation Transformer Type M.T.25, Price: £2/5/8, Trade,

MODIFICATION TRANSFORMER

Type M.T.15A-75 Watts Suitable for modulating up to 150 watts

DRIVER TRANSFORMER Type I.T.588

Suitable for 807s Class B Triodes from S.E. or P.P. Driver. Price: £3/10/0, Trade.

DRIVER TRANSFORMER Type 1.T.545

Suitable for AB2 Grids from Triode driver stage. Price: £3/16/8, Trade.

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STNYFE BRANCH

BUNYER BRANCH

Big success never this month chues, but first
of all some news of the June overling. Those
vectors were our distinguished unifor and
ord the other vectors visitors Jim 22XX and
Moors L. T. Warden and R. Jackson. Members
Moors L. T. Warden and R. Jackson. Members
C. S. AVII., 3474, 3277, 12270, 22XW. 2AXF
2CII. 32XI. 3474, 32XY. 12270, 22XW. 2AXF
2CIII. 32XI. 3478, 32XY. 12270, 22XW. 2AXF
32XIII. 32XI. 3478, 32XY. 12XI. 32XV. 34XY
and 34XXX. with Measurs Subterland, Blyth,
NAPAYET, and Fore Moor. Mailer McLeckhen.

And According to the property of the control of the

The supposed by the sectionation of the model of the supposed by the section of the supposed by the supposed b

Gener of a german Trousian renderion. whatestire street way the control of the co

operation. Bill EXT has forwhan he bander-held and be removed by the home 14 gaze in the XT Chev. Any resemblence between that relacie and a lown is pracely celesticated, and if any of you other chaps are preparing also remember that it is not be Saturday of the second page 15 gazes and 15 gazes and 15 gazes and beginn and before than ever before as we cre-bility and before than ever before as we cre-lated to the second of the second of the lam not able to my who the speaker will be, but you will be soltling in the Butletin

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or no prower, it should be finished soon.

Run ASA's has been doing well bethy and its firm ASA's has been doing well bethy and its must be a good place for Amaster Radio from the firm Ask and the firm Ask and the firm Ask and the firm Ask and the firm and the firm Ask and the aluminium point, so things are looking good surveys Barry 2APA is still potting in a mighty signoid from Teraiba and its real Lb. and the seal Lb. and the best to propose about opportunity for the local tw to begin. I do hope that when the joyous day arriver annuy of us will have like worked to have been worked to be the present. So the seal that the present is the present of the seal that the present of the method of the present o ADVERTISEMENT

CAN U WK BREAKIN?

TT

HWS UR NEW TX?

wks fb. but hard to make it luk gud

HAVE U HRD ABT THE NEW AUSTRALIAN TX KITS

U CAN GET EM AS FIN-ISHED SHEET METAL WID LETTERED FRNT PANEL ES KNOBS, OR AS KITS IN STAGES OF COMPLETENESS TO SUIT THE GUY WID JUNK IN HIS BOX

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150 OR 75 WATTS IN CAB-INET ONLY 16 BY 9 BY 9

eek - vfo or xtal?

VFO

hw abt price?

fb

BETTER THAN OVERSEAS STUFF

abt time - hw can i find out more?

SEE NEXT MONTH'S A.R.

42-5727 (Vic.)

and what he doesn't know about sickband into worth knowing. So let's have another agot turn out even if it is a bit cold. If you feel like seeing this whiste demonstration then the self of the self of the self of the fourth Wednesday, which is first He will how you. The conship meeting is held at how you. The conship meeting is held at the locals around Cook's Bill know where Bill lives. See you there, 73, LAXX.

Good news from us this month classe. Ins Good news from us this month classe. Ins the control of the control of the control time this appears. We of course aircsety have ours. If you are looking for the and you ourse the control of the control of the looking for contacts on Mondays. Wednesdays and Fridays, 1300-1330 and 1530-1615 hrs. The Crystals we have are 7050. 1975, 7189, 7125 and

Thanks to all conserned, we now have a transmitter made by the club members with a 1625 in the final, about 20 watts and plate and screen modulation. Thanks to all those chaps who have given us a QSO and especially

LOW DRIFT CRYSTALS

AMATEUR BANDS

ACCURACY 0.02% OF STATED FREQUENCY

3.5 and 7 Mc. Unmounted, £2/10/6 Mounted, £3/0/0

12.5 and 14 Mc. Fundamental Crystals, "Low Drift. Mounted only, £5.

THESE PRICES DO NOT INCLUDE SALES TAX

Spot Frequency Crystals Prices on Application. Regrinds £1/10/0

MAXWELL HOWDEN 15 CLAREMONT CRES. CANTERBURY, E.7. VICTORIA

to Harry IAFA and Jim 2AHT, who have helped us to get a reasonable signal on 40. We may swen be on 30 one day Jim! Look for us in Education Week also. We hope to be on nearly all day on 11th August, our open day See you then. 73, 2ATZ.

RICE HOUSELINE RECTION

The usual monthly meeting was held or lith June in the club rooms at Lawson when Mth June in the club rooms at Lawson seventeen members were present to becture on "Antennae," etc., from H 2AAH. Those present were 2QA, 2ZMS, 2HZ, 2ADF, 2AVN, ART, 2ASZ, ZABK, LAVK, ZRN, 2ADA, Noel Walker, Derek and Jack Ferth.

and Jack Ferria.

The meeting closed in record time at 4.55.

The meeting closed in record time at 4.55.

The meeting of look over with the leverage of the evening discussing all types of antenna including mobiles, which lasted two and a necluding mobile, which lasted two and a still answering questions at midnight, which doded more wood to the five. Thanks Harold for a very excellent becture and we all boye or the control of the control Warwick 2ZMS

warwick ZZMS was duly welcomed for the first time after not long moving down from the "cop shop" at Gerta to Mt. Drutt. Warwick has a very nice sig. or 3 mx tising a work of the control of the control

2ZMS will beer you.

Up the mountain, Dave 3NK, at Lawson,
Up the mountain, Dave 3NK, at Lawson,
Up the mountain, Dave 3NK, at Lawson,
mobile, Dave has a few trips to make as well
as "Operation Pennel" soon and in Hilling two
Coming down the mountain to Binziand, my
spele tell me that Norm XSA has been sin
TUS tex-LASY) mabile from Springwood down
to your truly of Girchrook. Kee, was sightly
calling 3ADA from 1600 with no lock; no
wonder, the receiver was do.

wonatz, toe receiver was on.

Al 2278 is building new gear on 6 mx to
take away to New Guinea and I believe be
will be away for two months. Looks like Ai
is setting up to work back home. Jack 2AAT
and 2ADA mobiled to Katoombe the other
Saturday to see the anow, barbecued lunch at
Wentworth Palls, and a good time was hot
wentworth Palls, and a good time was hot

Wentworth Falsk, and a good time was not by all. My all the by all

VICTORIA

An informal but useful meeting was held on 1st July to promote activities in this Zone which have been sadly neglected in recent

ATTENTION ALL VICTORIAN AMATEURS

Until further notice the Victorian Division rooms at 478 Victoria Parade, East Melbourne, will not be staffed during the day, and no meetings will be held there.

Please listen to the Sunday Broadcast for details of the new meeting place and the office phone

All mail should still be addressed to P.O. Box 36, East Mel-bourne, C.2, Victoria.

would be a good basis on which to institute an offerial Zone hook-up. It was so decided and in future will commence at 7.18 every Turn-way night.

The only exception to this programme was a construction of the programme will be a constructed by the construction of the programme will be a constructed by the construction of the construction of the construction of the construction of the Zone will be zero and to act as a stimulation to the Z call holders to obtain their stimulation to the Z call holders to obtain their

A programme of future activities has been tentatively drawn up and the first outing in September is to Mount Tarengower, he exact details of which are to be discussed in the Zone hook-up so that those who are interested can fire up the converter or wait until the next 80 mx. hook-up in August.

86 mx hook-tip in August.
At the end of the mesting, which at times
At the end of the mesting, which at times
At the end of the mesting the contille SACN showed colour sides of the many
W Hams he visited on his recent irry to the
States. Although the faces of these Hams
ever not known to many, there were not
known to many, there were the
bands, probably the best known being Newt
WHECH.

The outcome of the meeting was that a great deal of re-building will be conducted to t.v.l. proof low frequency tx's and to construct new

proof low frequency the and to construct naw 2BY and 2

You will hate yourself if you miss the

1961 VICTORIAN

STATE CONVENTION during the week-end

30th Sept.-1st Oct. SATURDAY, 30th SEPT:

- a Display of Commercial Equipment. Combined Convention and Annual
- . All at Sents Hotel, Colling Street.
- SUNDAY, 1st OCT .: . A Day in the Hills at Ferny Creek. Own Pienic Ground and Barbesue.
 - Transmitter and Fox Hunis. Disposala Gear. Novelty Events, Children's Games and Competitions, Sweets, Drinks, loe Cream and Shelter.
- Plus the Grudge Match of the year—Duck Talk v. Ancient Modulations.
- * Special interzone trophy.
- * We will be happy to arrange your accommodation

YOUT accommodation
NOTE.—All visitors are requested to bring with them one pair of headphones, one germanism diode, one tuned circuit, all cuantingly contrived to operate as a No prize will be awarded for the netactic construction. This is most important as if will be of the greatest amistance to your successful participation in several never-before-attempted contests.

COST-DINNER £2/2/0 a head (YLs and XYLs welcome) Registration 19/6 a member

Special concession if you have held a licence for more than 35 years or have travelled more than 300 miles to the Convention So reserve the week-end 30th September and 1st October, for the greatest, most-exciting and the biggest Convention ever held in Victoria. Secretario de la constanción del constanción de la constanción de should be made without now drain. The 18th is deliver rainfully of 1 me with a convenient feedbad fution the 18 me load of a Golmon or feedbad fution to 18 me load of a Golmon or 18th in the 18th in

MODRABBIN & DISTRICT RADIO CLUB For the past few months the Club has been quita active both radio wise and socialis Eighty meler to hunts have been very popular, a white elephant night proved a successful venture, and members have generally been active in various fields.

wenture, and members have generally been Good and the County of the Coun

Members are taking monthly roster to keep SAPC, the Club station, on the air and it depends who has the month on as to the frequency being operated.

Quency osing operated in Tutter settints can be surmarized: 80 ms. Tutter settints can be surmarized: 80 ms. Tutter settints can be surmarized and can be setting of 80 ms. The general meeting of 8th August, Kel 327Q is giving us setting of 8th August, Kel 327Q is giving us setting of 8th August, Kel 327Q is giving us setting of 8th August, Kel 327Q is giving us setting of 8th August, Kel 327Q is giving us setting of 8th August, Kel 327Q is giving us setting of 8th August, Kel 32TQ is giving us setting on 8th August, Kel 32TQ is given and setting on 8th August, Kel 32TQ is given and setting on 8th August, Kel 32TQ is given and setting of 8th Au

OUEENSLAND THE SUNSHINE STATE

Well, the second to general the second the second to general the second the second to general the second the second to general the second the second to general the second to general the second the s he could of the Secretary's Job, he hasn't taken over yet, Keith 4DG was keeping both eyes open for the odd shilling. Ken 4VM did Hinnard, while Bert 4AO, Evan 4EF, Jack 4JF, Hon 4RL and nyaelf had to use s.b. to

GP. Not oft; me systel had to use sub to see the service of the state of the state

us. Some discussion took place on matters handsed by the Treasurer and in tuture we hose
to have our books suddied quarterly and a
general meeting. Evan reported on the &t
box situation and got a few names to bring
that up to date. A few useful crystals should
be available soon.

OBITUARY

The Company of the Co SUSSELL PLEXMORE ROBERTS, VK4PN

to size to the W.L.A. and work hard the Division.

All Amsteurs everywhere offer despest sympathy to Mrs. Roberts family in their and betweenorth

We did not get time to finalise our mentaly meeting lectures, but there are plenty avail-able and "Ill heve no froudle making up a bable and "Ill heve no froudle making up a meeting. My remarks and notes of last month or lectures till stand. Just give me an lose of what you want. Some of the technical and recent research. Incompleric prediction and theory, ionospheric research and opposedic X-transistors—all will be short and suitable for

At the June meeting in the usual Elizabeth Street rooms, Jim 4PR was in the chair, Bill 4WX read the minutes, but we didn't finish the business until after nine. Main business over, read the missions but we disken feather when we willing on preference for a 740m Moyle Memorial. The Stellar of which will probably the stellar of the

the law Shot ST. a Twa Sweden. More and taking in interest in the next of the state of the state

bery are beer en getiter Deil till, who has net been well, on the art gann very soon. The second process of th

this mouth, but I think it was Merb 400.

(WX hand the last faw mornings weeking to the control of the control

reliable, as ever on the same head and he reliable, as ever on the same head and he reliable. It is not supporting that such a large body and the reliable of the reliable of

seen the outer of industry but your re-operation. It was noted that the VEX doriest Station, TRANSPAR has edipted that hash of contecting the party of the party

The editorial in June "A.R." is very timely, and as stated it will not be long before the Easter Courculton is with us. The year 1942 seems very asspicious because Australis will then be holding the British Empire Ganes and saybe a pointer to good things in store, which we can obtain if a concreted effort is made



TEST EQUIPMENT HEATHKIT GENERAL PURPOSE 5"

OSCILLOSCOPE KIT (OM3)

"Y" sensitivity 0.09v./inch, 4 c.p.s. to 1.2 Mc. Rise time 0.25 microseconds. Sweep 20 c.p.s. to 150 kc. Input 105-125 v.a.c. 50/60 c.p.s. 65 watts Weight 22 lb Price £44/12/-.

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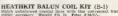
TRANSMITTER KIT (TX1) Combines quality, versatisity, style and low cost. Provision for single sideband adapter 'Spotting' push-button for 'aero beat Low level speech clipping and time sequence testing Offers 159w phone and

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SOUTH AUSTRALIA

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greet in more than Council, but everybodies if in good part, or eits they are remark.

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Extremely louched at this generous gesture inthough keeping one eye open for the nigger that the second of the second of the second little private view, accompanied by the mem-bers personal interjections, who seemed to think that because my hair shood up on end think that because my hair shood up on end think that because my hair shood up on end think that the second of the second of the think that the second of the second of the and if I can slip it in the notes without the 20ther, waking up. I will led you know just Editor waking up, 1 will let you know just what I saw.

Well, to make a short story longer, the bidding got under way, most of the gear was disposed of, and everybody left apparently having thereagily releved the fare offered, and retired for their receives of virtue at the forest the second of the second of their receives and of adjustment of their receives and of adjustment of their receives and their receives and of adjustment of their receives and of adjustment of their receives and their re

do your My cup on neppon-forwing, Bull SKB in confact with Lance SKL forwing, Bull SKB in confact with Lance SKL on 7 Mc. the other Sunday, and so pleased was Bill with his new translator converter that he finished talking Lance in to giving it a go, mainly because, to put it in the words translator converter, it's a besut, if it would only go!"

Berry 3BQ was also heard the other Sunday morning exchanging pleasantries with David SAW who was mobile and a good signal too SAW who was mobile and a good signal too Dave was someone named Al. and to my untrained earn it sounded like \$2CR, and from the sunday of the Hard NOW from his GTM. Al would have block Mach flutry, shorty and boath, in ear northwest hard would be sufficient to the control of the sufficient to the sufficient to the sufficient to the Minister Secretary for the Division. The Minister Secretary for the Division to the sufficient to the suffin

What's that? What did I see on the What's that! What did I ase on the side! Just a sec., while I takes a peop at Ye Tak Just a sec., while I take a peop at Ye Tak Just a sec., while I take a peop at Ye Tak Just a State around, he wen't lest much longer. Rushle SEC has been dabbling in a little around the second in t

your preschait knady?

A welcome you'dlot to the general meeting of the control o

his vacation, but hope that he came through unaesthed from what I always think as hostile territory!

Tom STL writes from Banmark to say that

territory:

Tom STL writes from Renmark to say that
the last couple of Sundays have not helped
the SWI broadcasts, in fact the VK2 signals
have been well out in front, to the detriment
of the broadcast. No mention of any one call,
much to my disappointment, as I was hoping
that Max ZARZ would be one of the culprits.

have been well cut in result, to the deriment of the breadents. No mention of any one call, that has 2ARZ would be one of the culpital, that has 2ARZ would be one of the culpital cut of VERA. Doll The in quite service on 3A and the cut of VERA and 2DR in quite service on 3A and the cut of VERA and 2DR in quite service on the culpital cut of the cut o

to be believed. Brote film: in content with a VPE unten film may action, not the report of the VPE unten film of the report of the very sense of the very se

solition, the secret of the side will soon be a considered to the secret of the side will soon be a considered to the secret of the secret of

aDW, a keen 7 Mc. habitue of many moons, seems to have lost interest in the hobby of late. Re tails me that he is not very active these days and feels no pangs of remorae. However, he is not the first to say that and definitely won't be the last. Wait and see,

before the ball of the ball of

don't forget young man with a hernia
head to the done when the done
head to the doctor 'Goldenia'
When fixing my middle—don't you dare
to fiddle—
With matters that do not concernia."

—3PS (PanBy to you)

STOP PRESS [What Divisional scribe did not know that a tribe member had a broken rib? My, the in-telligence service is not up to standard!—Ed. --and still awake.]

ELIZABETH AMATEUR RADIO CLUB The Elizabeth Amarkus Radio Club station (YKSLZ) will be on \$0 and 40 metres during the Elizabeth Sixth Birthday Celebration on November 18, together with a number of other Elizabeth stations. We would appreciate some contacts on that date.

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Perth.
There has been some activity on the higher bands, but it is very spasmodic. Skipper 6WS has had contacts and \$50 HRG is heard occasionable to the bands of the higher band occasionable to the higher bands ones activity on it, during the day light hours, from the shift workers and gentlemen of leisure. Henry 6DC, Bob 6RG and Horrie 6ED are heard occasionally among and Horrie 6ED are heard occasionally among

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HAMADS

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